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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Serial No.: 09/868,182

Confirmation No.: 6962

In re Application of:

Jean-Paul VIDOT et al.

Group Art Unit: 3682

Filed: June 15, 2001

Examiner: Vinh LUONG

For: PYROTECHNICALLY UNLOCKABLE MECHANICAL
LINKING DEVICE IMPLEMENTING A PISTON

PETITION UNDER 37 CFR §1.181(a) (3)
TO INVOKE SUPERVISORY AUTHORITY

Mail Stop Petition
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Sir:

Petition is hereby made under 37 CFR §1.181(a) (3) to the Director to invoke supervisory authority and to set aside a criticism of submitted drawings made after prosecution is closed in accordance with the practice under Ex parte Quayle. The background of and the reasons for the petition appear below.

The application describes and claims a pyrotechnically unlockable device for separating a movable member from a fixed member; the device is shown in an initial condition in Fig. 2 and in a final

condition in proposed Fig. 9 (ATTACHMENTS A and B; the latter drawing is the matter in dispute). The Office Action mailed July 12, 2004, a paper closing prosecution on the merits under the practice under Ex parte Quayle, contained the assertion that proposed new Fig. 9 illustrating deformation of tips 15 constituted new matter. There is no new matter involved.

The device depicted in Fig. 2 includes a piston 21 located within bore 28, so that when charge 23 explodes, the resulting propulsion force forces piston 21 along bore 28 toward the right. In the initial condition shown in Fig. 2 (before explosion of charge 23), piston 21 is engaged inside moveable member 10, which has flexible tips 15 shaped like a barb, the barb having external profile 18 engaged in internal profile 19 of the fixed member. The piston holds the barbs apart. In the final condition shown in Fig. 9 (after explosion), piston 21 has been pushed to the right, thereby dragging moveable member 10 to the right, and disengaging profile 18 from profile 19 of the fixed member. In Fig. 9, the movable member 10 has been disengaged from the fixed member 11. As a result, Fig. 9 shows flexible tips 15 portion of movable member 10 as no longer separated by piston 21, and part of moveable member 10 and flexible tips 15 are

illustrated as bent inward toward the axis 9 of bore 28, i.e., in a relaxed configuration. The explosive charge having been spent, there is no mechanism for piston 21 to travel further, or even backward.

The Office Action mailed December 3, 2002, page 8, last paragraph, contained an objection to claim 7 for having elements not illustrated in the drawings, i.e., the drawings did not show external profile 18 of tips 15 disengaged from matching profile 19. Proposed Fig. 9 was filed with the Amendment of May 14, 2003 to show the claimed invention after final movement of piston 21.

The Office Action mailed July 12, 2004 contained the assertion that proposed new Fig. 9 illustrating deformation of tips 15 is directed to new matter, i.e., that the original disclosure does not describe movable member 10 and tips 15 bent inward in exactly the way shown in Fig. 9, i.e., member 10 and tips 15 bent radially inward to the arbitrary extent shown and continuously uninterrupted relative to axis 9. The Office Action contained a statement that once the application had been filed, the specific showing in proposed Fig. 9 of one selected deformation of tips 15 and movable member 10 among a full spectrum of possible deformations disclosed on the filing date is new matter.

In a telephone discussion on July 15, 2004, with Examiner Luong, he explained it was his opinion that the original disclosure did not specify a preferred embodiment including, either as specifically quantified dimensions or as a drawing illustrating a preferred amount and shape, (1) a specific amount of bending of tips 15, and (2) a specific change in the size and shape of chamber 27 defined by the relaxed, inwardly bent wall of moveable member 10 and tips 15, and that illustration of any arbitrary specific amount of deformation of tips 15 is new matter, i.e., that proposed Fig. 9 shows one specific amount of bending that is not supported by disclosure of a preferred embodiment constituting a specific amount of bending.

The Examiner stated that, given the lack of initial disclosure of any specific degree of bending, any illustration of even an example of such bending would be deemed to be new matter. See the concurrently-filed Statement of Substance of Interview.

No new matter is involved because Fig. 9 is nothing more than a representation of the configuration recited in claim 7. Fig. 9 shows a representation of bending of the movable member and flexible tips, and corresponding change in configuration of the associated

chamber after movement of the piston and relaxation of the member and tips.

Original Fig. 2 shows an initial condition where piston 21 occupies bore 28 defined by the inside of movable member 10, and the remaining length of bore 28 to the left of piston 21 is described as chamber 27. Fig. 2 shows an initial condition where chamber 27 is relatively small, and proposed Fig. 9 shows a final condition where piston 21 has moved along bore 28 toward the right to a final position, thereby causing chamber 27 to be larger, i.e., to further include the space formerly occupied by piston 21. Because movable member 10 and flexible tips 15 relax inward after passage of piston 21 to a final location to the right of bore 28, chamber 27 necessarily changes both in size and shape. The Examiner states that the original specification does not describe details about the change in the size, shape and configuration of chamber 27 after movement of piston 21, and proposed Fig. 9 shows a specific, arbitrary size, shape and configuration of chamber 27, selected out of a full spectrum of possible sizes, shapes and configurations. The same could be said for selection of the size, shape and configuration of movable member 10 and tips 15 in their relaxed condition in Fig. 9, because they define

the configuration of chamber 27.

Also, the July 12, 2004 Office Action, in the paragraph bridging pages 6 and 7, contains a statement that proposed Fig. 9 shows only one possible movement of piston 21, i.e., to the right, with a corresponding expansion of chamber 27, and that alternatively piston 21 could move to the left, thereby decreasing the size of chamber 27. However, such a consideration completely changes the fundamental nature and operation of the invention and entertains an impossible alternative movement, because the propulsion force developed by explosive charge 23 forces piston 21 to the right, thereby expanding chamber 27, and there is no mechanism for causing piston 21 to move to the left. Therefore, there is no reasonable basis for considering the possibility of chamber 27 changing in any way corresponding to left movement of piston 21, when viewed in Figs. 2 and 9, without changing the structure of the claimed invention.

Fig. 9 merely illustrates a representation of the final condition after the piston has moved and the movable member and tips have relaxed, and therefore does not constitute new matter. The specification as originally filed, page 9, lines 6-9, describes an initial

shape of chamber 27 as being delimited by internal surface 28 of movable member 10 and closed on the right side by piston 21 and on another side by rod 3. The specification, page 10, lines 11-14, states that "the gas pressure that develops in the chamber 27 pushes the piston 21 towards the front face 25 of the device"; at page 10, lines 24-25, states "the piston 21 is displaced until the collar 30 abuts on the abutment surface 32;" and at page 10, lines 30-32, states the "radial deformation of the tips 15 (continues) until their conical external profile 18 is disengaged from its matching housing 19." Thus, original Fig. 2 shows piston 21 in a first position and chamber 27 having the first size and shape, as described in the specification, and Fig. 9, shows piston 21 in a second position and chamber 27 having a second size and shape as a result of piston 21 being displaced toward front face 25, as described in the specification. Fig. 9 merely illustrates a representation consistent with the configuration described at page 10, lines 30-32 of the specification, and therefore does not constitute new matter.

The MPEP §608.04(a) Matter Not In Original Specification, Claims, or Drawings states:

Depending on circumstances such as the adequacy of the original disclosure, the addition of

inherent characteristics such as chemical or physical properties, a new structural formula or a new use may be new matter (underlining added).

In the present case, Fig. 9 illustrates by way of a representative embodiment the inherent characteristic of relaxation of a structure previously under tension, i.e., relaxation of movable member 10 with flexible tips 15 (specification, page 9, line 16) when free of internal support provided by piston 21 (specification, page 10, lines 4-7) after piston 21 has moved to the right, so that member 10 and flexible tips 15 can relax radially inward (specification, page 10, lines 30-32).

The MPEP §608.02(d) Complete Illustration in Drawings, quotes 37 CFR 1.83 Content of Drawing, paragraph (a), as stating the drawing in a nonprovisional application must show every feature of the invention specified in the claims. The MPEP explains "[a]ny structural detail that is of sufficient importance to be described should be shown in the drawing. Originally filed claim 7 recited:

when the piston (21) is translated under action of the gas pressure, thereby allowing the tips (15) to bend in the direction of the piston (21)

The quoted language describes the location of the piston after being moved toward a position where the piston

abuts front face 25, where tips 15 bend "in the direction of the piston", i.e., bend toward axis 9, as shown in Fig. 9. The specification, page 10, lines 28-32, describes "radial deformation of the tips 15 'to continue' until their conical external profile 18 is disengaged from its matching housing 19," thereby disclosing continuous deformation, contrary to the allegation in the Office Action. Also, the specification, page 17, lines 7-8, describes "the jaws 45 being pushed towards the inside of the axial bore 42," referring to Fig. 6 showing tips/jaws 45 and axial bore 42. Thus, the original disclosure describes in two places tips being held straight originally by the piston and then after movement of the piston, bending radially inward; such bending is described continuously uninterrupted. The specification describes such movement and change in configuration in broad terms, without limitation.

Accordingly, claim 7 recites the bending limitation with wording intended for a particular scope of patentable protection, i.e., "allowing the tips (15) to bend in the direction of the piston (21)." A specific amount or shape of bending is not claimed. The specification describes corresponding enablement in

support of the claimed scope of bending. In both specification and claims, the extent of bending of movable member 10 and flexible tips 15 (with corresponding change in the configuration of adjacent chamber 27) is described without limitation as to specific size, shape or configuration, other than to say that bending toward the center axis results upon movement of piston 21, i.e., bending is an inherent aspect of flexible member 10 and tips 15 upon being released from being held apart by piston 21. Proposed Fig. 9 represents such claimed scope of inherent bending consistent with the scope of the description in the specification. And taken together, a person skilled in the art would be on notice as to the scope of bending as supported by the text of the specification consistent with corresponding representation shown in Fig. 9. A drawing is merely representative of the invention. In re Meng, 492 F.2d 843, 181 USPQ 94 (CCPA 1974).

For all of the above reasons, the rejection and justification are both improper and should be rescinded.

No petition fee is required.


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The Commissioner is hereby authorized to charge any necessary fee (credit or overpayment) associated with this communication to Deposit Account No. 16-0331. A duplicate copy of this letter is enclosed.

Respectfully submitted,

PARKHURST & WENDEL, L.L.P.

September 13, 2004
Date


Charles A. Wendel
Registration No. 24,453
Robert N. Wieland
Registration No. 40,225

CAW:RNW/klb

Attachments: Two Drawing Sheets, Figs. 2 & 9

Attorney Docket No.: CELA:082

PARKHURST & WENDEL, L.L.P.
1421 Prince Street, Suite 210
Alexandria, Virginia 22314-2805
Telephone: (703) 739-0220

Amd 11-24-03

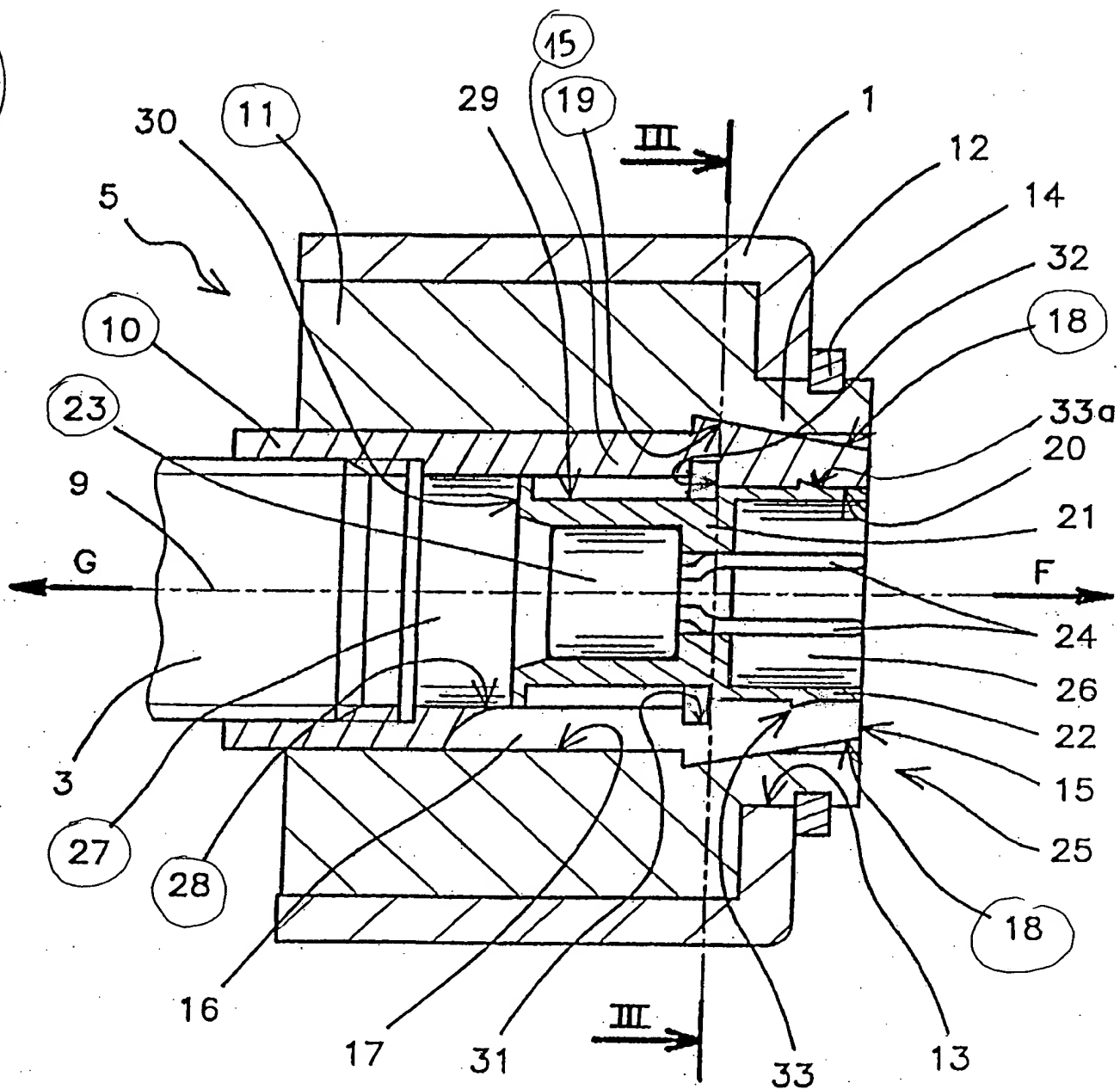


FIG 2

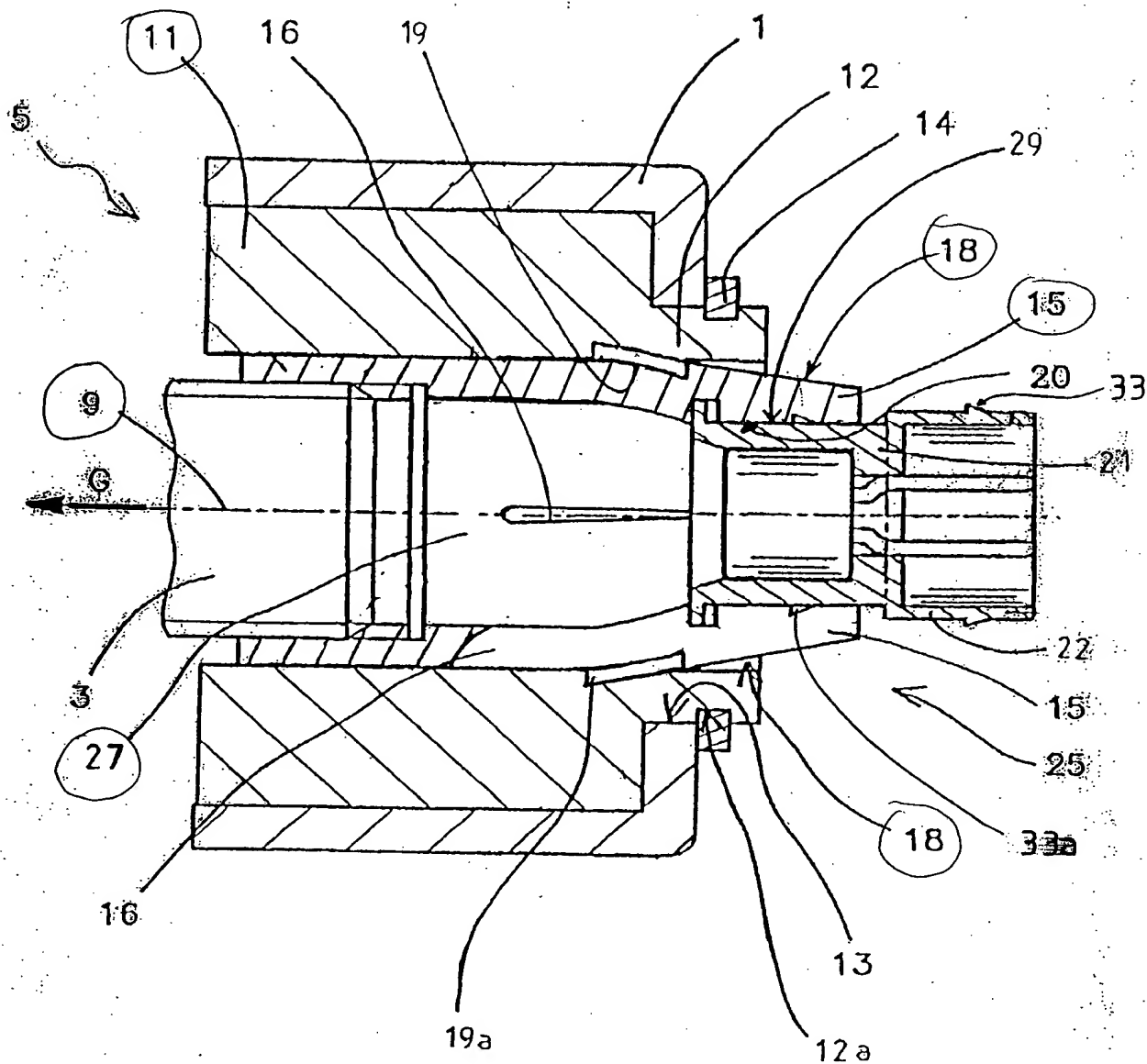


FIG 9



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STATEMENT OF SUBSTANCE OF INTERVIEW

Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Sir:

Applicants acknowledge on the record the July 15, 2004, 2004 telephone interview between applicants' representative, Robert N. Wieland, and Examiner Vinh Luong. During that interview, the Examiner stated his position that the original disclosure did not specify a preferred embodiment including, either as specifically quantified dimensions or as a drawing illustrating a preferred amount and shape, (1) a specific amount of bending of tips 15, and (2) a specific change in the size and shape of chamber 27 defined by the relaxed, inwardly bent wall of moveable member 10 and tips 15, and that illustration of any


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arbitrary specific amount of deformation of tips 15 is new matter, i.e., that proposed Fig. 9 shows one specific amount of bending that is not supported by disclosure of a preferred embodiment constituting a specific amount of bending. The Examiner stated that, given the lack of initial disclosure of any specific degree of bending, any illustration of even a representation of such bending would be deemed to be new matter.

Respectfully submitted,

PARKHURST & WENDEL, L.L.P.

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Charles A. Wendel
Registration No. 24,453
Robert N. Wieland
Registration No. 40,225

CAW:RNW/klb

Attorney Docket No.: CELA:082

PARKHURST & WENDEL, L.L.P.
1421 Prince Street, Suite 210
Alexandria, Virginia 22314-2805
Telephone: (703) 739-0220